

INTRASTROMAL CORNEAL MODIFICATION VIA LASER

Abstract of the Disclosure

A system and method for modifying a cornea to correct the vision of an eye.

An ultrashort pulse laser, such as a pico, femto, or attosecond laser, is used to separate an internal area of the cornea into first and second opposed internal surfaces such that a substantially circular area centered about the main optical axis of the cornea remains attached between the first and second internal surfaces. Ocular material can then be introduced between the internal surfaces to change the curvature of the patient's cornea. The ocular material can be either a fluid or a solid lens or a combination thereof. The exterior surface of the cornea is ablated using an excimer laser to further correct the vision of the eye.